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TÜRKİYE'S TECHNOLOGICAL CHANGE, e-GOVERNMENT AND PUBLIC ADMINISTRATION *

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Abstract

A major technological change is taking place in the world. Technological developments have significantly affected public administrations in Türkiye, as in many states. In terms of public administration in Türkiye, e-Government implementation in the 2000s appears as an important development in this regard. Changing technology also changes the relationship between citizens and the state, and e-Government application can also be evaluated in this context. Many concepts are used to express technological developments, including the information age, the fourth industrial revolution, e-Government, digital transformation and artificial intelligence. Although steps related to technological developments have been taken at various times in Türkiye, addressing technological transformation as a public policy can be initiated with e-Government. In this context, the study includes the emergence process of e-Government, the elements of e-Government, its objectives, application examples of e-Government in Türkiye, e-Government in development plans and top policy documents, digital transformation office, the positive effects of technological development in Turkish public administration, Turkish The negative effects of technological change in public administration are included under the headings. It is qualitative research based on examining and evaluating legal and administrative texts related to e-Government in Türkiye.

Keywords: Türkiye, e-Government, Digital Transformation in Public Administration
JEL Classification: O33, O38

TÜRKİYE'DE TEKNOLOJİK DEĞİŞİM, e-DEVLET VE KAMU YÖNETİMİ

Öz

Dünyada özellikle son yıllarda büyük bir teknolojik değişim yaşanmaktadır. Teknolojik gelişmeler birçok devleti olduğu gibi Türkiye'de de kamu yönetimlerini önemli ölçüde etkilemiştir. Türkiye'de kamu yönetimi açısından 2000'li yıllarda e-Devlet uygulaması bu konuda önemli bir gelişme olarak karşımıza çıkmaktadır. Değişen teknoloji vatandaş ve devlet arasındaki ilişkiyi de değiştirmektedir, e-Devlet uygulaması da bu kapsamda değerlendirilebilir. Teknolojik gelişmeleri ifade etmek için bilgi çağı, dördüncü endüstri devrimi, e-Devlet, dijital dönüşüm, yapay zekâ başta olmak üzere birçok kavram kullanılmaktadır. Türkiye'de çeşitli zamanlarda teknolojik gelişmelerle bağlantılı adımlar atılmasına rağmen bir kamu politikası olarak teknolojik dönüşümün ele alınması e-Devlet ile başlatılabilir. Bu kapsamda çalışmada e-Devletin ortaya çıkış süreci, e-Devletin unsurları, amaçları, Türkiye'de e-Devletin uygulama örnekleri, kalkınma planları ve üst politika belgelerinde e-Devlet, dijital dönüşüm ofisi, Türk kamu yönetiminde yaşanan teknolojik gelişimin olumlu etkileri, Türk kamu yönetiminde yaşanan teknolojik değişimin olumsuz etkileri başlıklarına yer verilmiştir. Türkiye'deki e-Devlet konusu ile ilgili hukuki ve idari metinlerin incelenip değerlendirilmesine dayalı nitel bir araştırmadır.

Anahtar Kelimeler: Türkiye, e-Devlet, Kamu Yönetiminde Dijital Dönüşüm
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1. INTRODUCTION

The great change that has occurred in information and communication technologies in recent years, with the influence of globalization, has caused significant changes in many parts of the world. Public administrations are also affected by the changes. The new public administration approach, which replaced the traditional public administration approach in the 1970s, and the developments in information and communication technologies lead to practices that support each other. The new public management approach aims to provide active, transparent, transparent, accountable, quality and fast service. With the new public management approach, there is a process in which citizens are more active. Citizens stop being citizens who unconditionally accept whatever service the state provides, and want to receive quality, fast, effective and efficient public services as a stakeholder actively involved in the management process. The development of information and communication technologies also contributes to citizens' ability to receive the services they demand from the state, as they demand, with the new public management approach. New public management and e-Government understanding are related to each other. In the most general terms, e-Government can be defined as the use of information and communication technologies by the state while providing public services and the state's connection with citizens through mutual digital networks.

In this context, the study includes the emergence process of e-Government, the elements of e-Government, application examples of e-Government in Türkiye, e-Government in development plans and top policy documents, digital transformation office, the positive effects of technological development in Turkish public administration, Turkish The negative effects of technological change in public administration are included under the headings.

The e-Government model is a reform for the public administration system and has strengthened governance and increased participation by eliminating many methods in the traditional state structure.

The e-Government model emerged due to today's technological developments, rapid population growth and the increasing workload of the public, and has started a new era in public administration. The model should be implemented in stages, within the scope of proper planning, by evaluating possible risks. Technological infrastructure, expert personnel in this field and providing the necessary financial support to the process will increase the success of the model. Basic elements of the e-Government model; the state, citizens, companies, institutions and public employees.

The e-Government system has eliminated many problems in public administration and savings have been achieved in various aspects. In order to understand the effects of the e-Government system, which is a reform, on public administration, it is necessary to understand the purposes for which it was developed. These aims generally include reducing red tape, transparency, increasing the quality of public services, providing savings in public expenditures, reducing bureaucratic obstacles, making services uninterrupted, strengthening participatory democracy, ensuring easy and fast access to public services, preventing informality and facilitating auditing.

It is generally accepted that the global world is now called the digital world/digital age. This acceptance argues that the time we are in is a new time period. However, the basic arguments are the same. The state wants to continue to be the sole and most dominant authority in this period, but other actors who may rival the state authority also want to increase their power in the international arena. In many areas, which were symbols of sovereignty of the classical state, there are now struggles for existence in the digital field. Digital diplomacy efforts are being continued in connection with public administrations. The state tries to explain its public policies, public goods and services through social media.

2. CONCEPTUAL FRAMEWORK

Technological developments have closely affected public administration, as in every field, and brought about significant changes. A new era has begun in Turkish public administration with the digital transformation; Ways of doing business, service delivery methods and public policy making processes have undergone a radical change. Today, most of the public services have been moved to the electronic environment and public administration has gained a new dimension. In the study, the concept of e-Government is explained; The elements and development stages of the e-Government model were examined. Integrating technology into public administration has positively affected public institutions and citizens in many aspects. In the study, the benefits of providing public services in the environment are explained, as well as some risks brought by digitalization. In order to achieve the expected efficiency from the digital transformation process, in addition to technical and infrastructural studies, the issue of cyber security, which has become a global problem today, was also examined.

Digitalization has provided convenience and savings in many areas, leaving traditional methods behind and paving the way for the development of new methods and models. The Turkish public administration system has been structurally positively affected by digital transformation; Bureaucratic obstacles have been reduced, services have become personalized and fairer, governance has been strengthened, democratic participation has increased and public administration has become more transparent. The purpose of digital transformation is not only a technical development, but also to eliminate existing administrative problems and to improve and modernize public administration. For this reason, it is necessary to consider digital transformation multidimensionally and examine it from different angles.

While developed countries carry out digital transformation faster and more effectively, technical and material inadequacies in underdeveloped or developing countries hinder the digitalization process and cause regional development differences. Achieving digital transformation requires political stability and financial support as well as technical work. In the study, the effects of technological development on economically weak countries are explained, and the concepts of digital divide and digital divide, which are important problems of the age, are explained. Attention has been drawn to the increasing strategic importance of technology and artificial intelligence production. Nowadays, where digitalization closely affects the development level and position of countries, e-Government, which reshapes public administration in Türkiye, which aims to become an information society, has been examined by taking into account all components of the process.

2. 1. e-Government and Elements of e-Government

Today, with the transfer of public services to the digital environment, the e-Government model has begun to be implemented all over the world and has become one of the benchmarks of development. Although there are different definitions and opinions about the concept of e-Government, it generally refers to the provision of public services to citizens electronically and the uninterrupted conduct of official transactions between the state and citizens in the electronic environment (Çarıkçı, 2010:98). The e-Government model is a reform for the public administration system and has strengthened governance and increased participation by eliminating many methods in the traditional state structure. Citizens have become the focus of public policies. e-Government is not a model that only includes the work of public institutions, but in order to achieve success, it is important for citizens, institutions, the private sector and all segments of society to work together. In this process, rather than which services are offered electronically, the extent to which the society benefits from these services and whether the expectations are met or not are decisive in measuring and evaluating the efficiency of the model (Atmaca, 2009:34).

The e-Government model emerged due to today's technological developments, rapid population growth and the increasing workload of the public, and has started a new era in public administration. The model should be implemented in stages, within the scope of proper planning, by evaluating possible risks. Technological infrastructure, expert personnel in this field and providing the necessary financial support to the process will increase the success of the model. Basic elements of the e-Government model; the state, citizens, companies, institutions and public employees. In order for the system to be successful, all components must do their part.

The state is the most important element of this model. The technological infrastructure of digital public services, development of delivery methods and coordination of the process are the responsibility of the state. The state must provide public services to citizens at the lowest possible cost and make the services accessible. Public policies and action plans should be designed to respond to changing expectations (Doğan, 2023:26). Conducting the process in a healthy manner and obtaining the expected efficiency from the system depends on the seriousness and importance the state will attach to this issue.

Citizens are one of the basic elements of the e-Government model, and in terms of the sustainability and efficiency of the system, they should be able to easily access public services offered electronically and have the technological knowledge required to adapt to the model.

Companies are one of the fundamental dynamics of country economies and must create their strategies according to technological developments in order to achieve success. Official transactions of the state with companies, such as registration, follow-up and taxes, have become possible faster and more effectively with the e-Government model. Trade has gained a new dimension with technological developments, and digital markets with wider customer potential have emerged in addition to physical markets (Gürkaynak and Gürzumar, 2015:49). It is very important for success that the private sector adapts to the e-Government model.

Institutions and organizations are important in the e-Government ecosystem because they interact with citizens, and it is important for them to adapt to changing conditions. Integrating structures such as foundations, associations, NGOs and professional organizations into the e-Government model will ensure the maturation of the process and increase its success.

Public employees play an active role in the e-Government system and build a bridge between the state and citizens. Even though the need for manpower decreases in the e-Government system, it is necessary to have a sufficient number of expert public employees to carry out infrastructure works, create algorithms in which services are provided, and solve the problems encountered (Değirmenci, 2023:50). For this reason, public employees are of decisive importance for the sustainability and success of the system.

The state plays an active role in delivering public services to citizens by forming the basis of e-Government applications. In this role, the state manages the transformation process for the development of public services without targeting any gain. The state's ability to manage this process correctly greatly affects success.

e-Government makes government more accessible to citizens. Thanks to this application, communication and access opportunities between citizens and the state are expanded, thus making communication and access between citizens and public institutions easier. Thanks to the development of technology, citizens' easy access to public services electronically makes the relationship between the state and citizens closer.

In order for e-Government applications to operate with higher efficiency, cooperation and information flow must be ensured between public institutions. Large-scale data used in e-Government services are seen as the resources that public institutions will benefit from most in their business processes in the future.

In order to create a successful e-Government model and increase service quality, there must be public employees who can actively use information and communication technologies.

e-Government enables companies to carry out their activities quickly, effectively and efficiently within the framework of certain rules, in all processes from establishment to termination. The state allows all company-related activities to be carried out electronically.

The concept of e-Government has two main dimensions, administrative and political: The administrative dimension of the concept of e-Government provides public information and services to actors such as public institutions and organizations and local government units, especially citizens, government institutions, and the private sector, by using information and communication technologies. to all actors who can benefit from the information and services in question. The political dimension of the e-government concept is the use of these technologies by the state in a way that will increase participation and transparency in public administration, management control and accountability (Yıldız, 2003).

The first dimension, the administrative dimension of e-Government, describes the provision of public information and services to the stakeholders of the public administration system through and with the help of information and communication technologies. Here, particular emphasis is placed on public information and services because it is necessary to evaluate non-public information and services offered by the private sector within e-Commerce. However, the information and services provided by non-governmental organizations, political parties and international organizations remain within the scope of the concept of e-Democracy (Yıldız, 2003).

In the functioning process of e-Government, at least one of the parties receiving or providing information and/or services must be a government institution/organization. In this framework, we can divide e-Government interaction types into three:

1. State to State: Here, there are information and services that move between two public institutions through information and communication technologies.

2. From State to Citizen: A public institution provides public information and services to one or more citizens.

3. From the State to the Private Sector/Business World: The public institution provides public information and services to private sector units.

The second dimension is the political dimension of e-Government. e-Government not only establishes relations between the state, citizens, private sector and non-governmental organizations; At the same time, it can also serve purposes that deepen and expand democracy, such as participation in management, ensuring or increasing transparency and accountability in management, and control of public resources. This part is located at the intersection of e-Government and e-Democracy (Yıldız, 2003).

2. 2. e- Government Application Examples In Türkiye

With the transition to the information society in Türkiye, almost all public institutions have individually developed e-government projects. Especially in central organizations, there are web pages or e-government projects that can perform interactive transactions for citizens and other institutions and organizations. ULAKBİM, MERNİS, UYAP, E-Nabız, VEDOP, POLNET, MEBBİS, TAKBİS, which are among the important e-government projects that can be used interactively, are included in this study. These applications were preferred because they were the first examples and were the applications of separate public institutions. Many e-Government applications are actively used in Türkiye today. It is useful to look at these applications as of the year they were first used.

ULAKBİM: National Academic Network and Information Center (ULAKBİM) was launched in 1996 as a project aiming to connect all academic institutions in Türkiye to each other and to global research networks and to support scientific research. It is aimed to increase the quality of academic studies with the opportunities provided by technological development. One of the most important purposes of establishing ULAKBİM is to prevent publication migration (Binici, 2012:169). During the relevant period, academics had to continue their studies abroad due to the lack of technical facilities in Türkiye, making it necessary to make important innovations in this field. ULAKBİM project is one of the first electronic services launched in Türkiye and still serves scientific research today. Integrating scientific studies with constantly developing technology is an element that increases the quality of studies and has a critical importance that will directly affect international academic success (Doğan, 2022:122). ULAKBİM, one of the pioneering projects of electronic public services, has created an important resource in terms of scientific research.

MERNİS: The birth of the e-Government system in Türkiye began with the Central Population Statistics Project (MERNIS) initiated by the General Directorate of Population and Citizenship Affairs of the Ministry of Internal Affairs in the 1970s. This project, which can be described as increasing the use of computers in the information and communication tools of the population administration and connecting these computers to each other with network technology throughout the country, has received the support of national and international institutions and organizations over time and has become one of the indispensable e-Government applications of Türkiye today.

With the Central Population Administration System (MERNİS), which has been implemented by Population and Citizenship Affairs since 2002, all population records have been recorded in a central system. With the increase in migration and security concerns as a result of rapidly changing social, economic, cultural and technological developments, keeping accurate population records has become critical for the security and prestige of the country, as well as for securing the social-legal rights of citizens (Eroğlu, 2006:84). Citizens' tax, military service, education, health and social insurance transactions are easily controlled thanks to the central population system. With MERNİS, various file costs have been prevented, transactions have been made faster and labor savings have been achieved. Population offices in all provinces were connected to each other via MERNIS, and citizens thus had the opportunity to carry out their transactions from where they are. Thanks to the system, coordination between public institutions has been strengthened and confusion has been prevented. Population control is an issue that directly affects internal security and has reduced informality and made inspections more effective. In this respect, MERNIS has become an important e-Government application that serves directly or indirectly to ensure public order in different areas.

UYAP: The National Judicial Network Information System (UYAP) project is an important project implemented to prevent various problems in the Turkish judicial system and to increase the

efficiency, speed and reliability of the process. With UYAP, data from all central and provincial units affiliated to the Ministry of Justice were collected in a single center. This application, which first started operating in 2005, has now been developed and become a platform where all litigation processes and results can be followed and cases can be conducted with remote video access. With the UYAP system, file costs were reduced, bureaucratic obstacles were prevented, record keeping became easier, time was saved, and employee performance was positively affected (Canpolat and Songur, 2015:494-497). In addition to accelerating the trial process, the UYAP system also enables more effective supervision of the process. Moving the physical transactions in the judicial process to the electronic environment has enabled justice to be served more quickly and the disruptions and grievances experienced due to staff shortages have been reduced (Güzel and Deligöz, 2014:66). With the Audio and Video Information System, people who were not present at the courthouse were enabled to attend the hearing via video conferencing. UYAP, an important e-Government application, contributes to the judicial system in various aspects and sets an example for subsequent projects.

E-Nabız: Digital transformation efforts in public administration have brought reformative innovations in the field of healthcare. A new era has begun in the field of health with the e-pulse application launched in 2015. Appointments are made through the system, past tests are displayed, affiliated physicians can follow up patients if permission is given, and all personal health data are stored in the application. Procedures that had to be done in hospitals in previous periods, which caused long waiting times and related financial or health problems, can now be done in a short time and easily with the e-pulse application. Creating simple and understandable algorithms within the system has increased the use of the application. In terms of the effectiveness and efficiency of health policies, correct analysis of big data is decisive (Eravcı, 2020:100). For this reason, recording all health data has made it easier to detect risks to public health. Although the E-Pulse application provides different services to citizens, it is effective in four dimensions: awareness raising, treatment and monitoring, diagnosis and strengthening the health system (Yeşiltaş, 2018:291). Thanks to the application, the procedures of people who frequently apply to health services have been accelerated and their treatment processes have become more controlled. In addition to making, it easier for citizens to access health services, the e-Pulse system contributes to the health system as an important resource in policy-making processes.

VEDOP: In the Turkish tax system, the need for a new model has emerged with the increasing population and heavier workload. The Tax Offices Full Automation Project (VEDOP) implemented in this field aims to alleviate the workload in tax offices with the help of technology, make tax collections more controlled and simpler, reduce file costs, and modernize the tax system and increase its effectiveness and efficiency (Yiğit Şakar, 2011:72). Citizens have been freed from the complicated transactions, long waiting times and bureaucratic obstacles that they encounter in the tax collection process, and collections have become possible in the digital environment, inexpensively and in a short time. VEDOP, an important project in the tax system, has been implemented in stages. It was first implemented as a pilot project in 1995 with the automation of tax offices, and with the positive results of this project, the VEDOP-1 project was launched in 1998 and was used in 22 provinces and 155 tax offices within two years. VEDOP-2 started in 2004 and the VEDOP-3 Project, which entered the maturation process afterwards, was put into use in 2007 (Hepaksaz and Hayrullahoğlu, 2011:113). Digitalization of the tax system, in addition to accelerating business processes, has made auditing more effective, strengthened the fight against tax crimes, reduced the density in public buildings and provided labor savings.

POLNET: Technological developments have brought about important innovations in the field of security, which is one of the basic duties of the state. One of Türkiye 's most important projects in

this field (POLNET), by using IT support in the activities of the Police Department; It has become a modern system that ensures that the task is carried out reliably and effectively and that services are provided in a quality and uninterrupted manner (https://www.egm.gov.tr , 2018, Access Date: 22.10.2023). With POLNET, security-related data was collected in a single center and coordination between police units was strengthened. POLNET, whose infrastructure work was first initiated in 1996, began to be used effectively in 2011 with the completion of its development stages. The system has been integrated with other forensic applications, making it easier to perform and track different procedures such as fingerprints, DNA tests, ballistic examinations, blood and tissue tests (Arı, 2014:115). Transferring transactions such as passport, vehicle registration, driver's license and gun license to the digital environment has eliminated different costs and waiting times for citizens. Unlike other e-Government applications, POLNET was implemented entirely with national resources, without receiving any external technical or financial support (Günaydın, 2014:181). POLNET has become an important e-Government project that enables modernization and improvement of security services with the help of technology.

MEBBİS: Ministry of National Education Information System (MEBBİS) is used to increase the quality and effectiveness of education by using information technologies, to monitor the status of students electronically and to record them securely, to collect all data in the field of education in a single center, to identify general problems and to provide a data source in the creation of education policies. It is an important project designed to be used as a Although the system, which was put into use on January 1, 2007, initially started with limited activities such as students' grade information, attendance status, and course schedule, its usage area has been increased by making technical developments and improvements. In addition to the education process, MEBBİS is also used for the administrative activities of the ministry, including personnel appointment, assignment, reward, penalty and retirement. Subsystems connected to MEBBİS such as DYS, e-Okul, e-Yaygın, TEFBİS, İLKSAN have been created and services that students, teachers and staff can use have been implemented. Activities such as different appropriations for school administration, paperwork, performance management can be done using different modules through the MEBBİS system (Çetin and Aydın:2023). In order to ensure success in the field of education, it has become a necessity today to include the use of technology in education in a measured manner. What happened during the transition to distance education during the pandemic period clearly demonstrated this necessity. In this sense, MEBBİS has brought important innovations to the education system and set an example for subsequent projects.

TAKBİS: Land Registry and Cadastre Information System (TAKBİS) was launched in 2001 in line with the goals of making all transactions regarding land, land and immovable properties safe, facilitating their control, preventing rights violations and ensuring standardization in cadastral services. Planning is an important factor in land management to ensure success in environmental policies, and when lands are classified correctly and used in activities appropriate to their characteristics, it will create added value for the country. With TAKBİS, more equitable techniques have been developed for valuation methods, data quality has been improved, and the temporal change of spatial data has become easier to track, thus modernizing the cadastral system (Dursun et al., 2020:2). TAKBİS has been useful not only in the field of cadastre but also in the fields of security and finance, where land and land transactions are important. Sharing data with many institutions such as EGM, MASAK, SGK, Ministry of Justice through the system prevents various crimes and is effective in trial processes (Güngör et al., 2010:298). For this reason, TAKBİS, beyond being a sectoral innovation, also covers other areas with which it interacts. It is an important project that affects the environment and contributes to the correct formation of environmental policies in line with the sustainable development goal.

2. 3. e-Government In Development Plans and Top Policy Documents

In the field of public administration, new methods and models are needed depending on the changing conditions of the age and rapidly developing technology. In developed countries, increasing computerization has been included in public administration since the mid-20th century, and this process, which turned into electronicization and digitalization in later periods, brought about structural changes in public administration. In Türkiye, although the results of e-Government studies were obtained after the 2000s, the infrastructure of projects in this field began to be created since the 1980s. The issue of e-Government has been addressed in both development plans and top policy documents, and important projects have been implemented. In order to analyze the e-Government process in Türkiye, it will be useful to examine these studies.

E-Government has started to be included in the development plans that include the country's basic policies since the 1980s. In the Fifth Five-Year Development Plan, it was emphasized for the first time that computerization should be included in public administration and national software should be developed (DPT, 1984:159). In the Sixth Five-Year Development Plan, the concept of "information society" was used by considering the social dimension of the process, and attention was drawn to the number of expert personnel that needed to be increased in this field (DPT, 1989:309). In the Seventh Five-Year Development Plan, it was stated that R&D activities regarding technology investments should be increased and joint studies should be carried out with technologically developed countries through public-private sector cooperation (DPT, 1995:70-74).

In the Long-Term Strategy and the Eighth Five-Year Development Plan, the importance of technology in terms of global competition was mentioned and it was planned to increase investments in this field. However, it has also been mentioned that electronicization will increase efficiency in public services (DPT, 2000:190-191). In the Ninth Five-Year Development Plan, the role of e-Government in restructuring public administration and increasing efficiency in public services is clearly stated (DPT, 2006:1). During the period covering the plan, the e-Government portal was opened for use in 2008. In the Tenth Five-Year Development Plan, it was mentioned that the positive results of the e-Government model strengthened participatory democracy and coordination between public institutions. Things that need to be done to increase citizens' satisfaction with the model are listed (Ministry of Development, 2013:53). The Eleventh Five-Year Development Plan was prepared in a period when the e-Government model had matured, therefore the analysis of the process was made more accurately and the areas that needed to be developed were mentioned. It was emphasized that technological opportunities should be used in strategic management and performance management in the public sector, and the issue of cyber security, one of the important problems of our age, was discussed (SBB, 2019:182-183).

Informatics and Economic Modernization Report: In the report prepared in cooperation with the World Bank and Türkiye in 1993, the situation of Türkiye, which aims to become an information society, was determined and suggestions were made on issues such as informatics infrastructure, computer use, qualified workforce and software studies. Although the report was planned to be an action plan, the plans could not be implemented due to the loan agreement with the World Bank not being completed (Alaca and Yılmaz, 2016:511).

TUENA: Türkiye Information Infrastructure Master Plan was prepared by TUENA, TÜBİTAK, TÜBA and TTGV in 1995. In the plan, the increasing strategic importance of information technologies was emphasized by drawing attention to security risks in the field of informatics (Arkun, 2003:182). The government of the period gave importance to this issue in terms of national security, and the Prime Ministry decided to carry out the TUENA project under the coordination of TÜBİTAK, with the

participation of various public institutions and NGOs. In this sense, TUENA has been a pioneering project in terms of cyber security policies.

Kamu-Net (1998-2002): The Prime Ministry established the Kamu-Net Supreme Board and Kamu-Net Technical Board in 1998 for reasons such as facilitating the coordination and monitoring of public computer networks, eliminating technical deficiencies and overcoming financial obstacles. As a result of the Board's work, an action plan proposal that will contribute to the creation of public policies was presented. The activities of Kamu-Net boards continued until the e- Türkiye Project was launched and ensured the strengthening of coordination and network systems between public institutions (Boyacıoğlu, 2018:289). Kamu-Net became an example for subsequent e-Government applications and paved the way for applications such as KAYSİS and DETSİS, which regulate the coordination and administrative transactions of public institutions today.

E-Transformation Türkiye Project Short Term Action Plan: Rapid technological developments in the world in the early 2000s began to closely affect global competition, and this necessitated significant changes for Türkiye. The E-Transformation Türkiye Project Short Term Action Plan was prepared by the government of the period in 2003 in order to modernize public administration and integrate technology into business processes. It was implemented with the Prime Ministry Circular No. 2003/48.

In the action plan; Goals such as carrying out work in integrity during the transition to the information society, increasing effectiveness and efficiency in public administration, providing public services to the society in a faster and higher quality electronic environment, gaining an advantage in global competition and restructuring public administration are stated (DPT, 2004:17). In the tables in the circular, the electronic services planned to be offered by public institutions according to their fields of duty, the purposes of these services and the target dates for implementation are stated. With the action plan, various public services began to be provided electronically within the technology of the period. The State Planning Organization, which is responsible for the preparation, monitoring and evaluation of action plans, prepared a new action plan for the electronic services that public institutions should offer in 2005. Despite the technical and infrastructural deficiencies in the period, important results were obtained in a short time by carrying out the studies seriously (Naralan, 2010:14).

The E-Transformation Türkiye Project has brought determination and seriousness to digitalization efforts, which were faced with coordination and stability problems in previous periods (Barışık and Yirmibeşçik, 2006:54). The project demonstrated Türkiye 's determination to become an information society and drew a road map for further work. The e-Transformation Türkiye Project, which is an administrative reform in terms of public administration, has accelerated the inclusion of technology in business processes and contributed to the modernization of public policy-making and service delivery methods.

2006-2010 Information Society Strategy: Following the action plans of the e-Transformation Türkiye Project, the State Planning Organization prepared the Information Society Strategy covering the period 2006-2010 in the field of e-transformation activities. In the strategy document; The current status of information and communication technologies, Türkiye's potential in the field of technology, targets planned to be achieved by 2010 and R&D investments that need to be increased are included. In addition to technical issues, strategic management and governance issues in the public sector were also discussed. The steps that need to be taken for the goal of becoming an information society are mentioned. The main objectives of the strategy are to gain an advantageous position in global competition, increase the share of world markets and increase social welfare. The effectiveness of workforce factors is decisive

for sustainable development and economic growth. Information technologies have gained strategic importance worldwide in a short time and have become one of the basic elements of business processes as well as capital and labor (Buluttekin, 2009:631).

Being an information society requires not only scientific and technical development but also social and cultural change. For social progress, the state, citizens and the private sector must do their part. Using technology effectively in business processes and all areas of life will contribute to global competition and savings. Strategy has become not only a technical but also a political and economic study, explaining the macroeconomic benefits of technological progress as well as its contributions to public administration (Çukurçayır and Çelebi, 2009:74).

2015-2018 Information Society Strategy and Action Plan: The 2015-2018 Information Society Strategy and Action Plan, prepared by the Ministry of Development of the Republic of Türkiye in 2015, determines Türkiye's current situation in the field of information technologies and covers the steps to be taken and the projects to be implemented. The activities that public institutions should carry out in the digital transformation process are written in detail. In a period where technology is developing day by day, it is important to update such action plans in terms of the effectiveness of public administration (Uysal et al., 2023:213). The planned actions include actions such as the creation of corporate informatics strategies for public administration, protection of personal data legislation, creation of public cloud computing infrastructure, as well as smart city projects that are rapidly becoming widespread considering current technological developments, and green informatics programs that consider environmental sensitivity (BTSEP, 2015:77-78). In the action plan, not only the public administration but also the private sector was scrutinized, and it was planned to create an e-Commerce issue and e-Export strategy for the private sector to gain an advantage in global competition. The action plan is an exemplary project prepared on the path to becoming an information society, as it puts forward important strategies for the private sector as well as issues related to public functioning such as increasing effectiveness and efficiency in public services, ensuring modernization, and reducing bureaucratic obstacles.

2016-2019 National e-Government Strategy and Action Plan: Digital transformation efforts in public administration require updates depending on changing and developing technology. The 2016-2019 National e-Government Strategy and Action Plan, prepared in 2016 by the General Directorate of Reporting under the Ministry of Transport, Maritime Affairs and Communications, is similar to previous action plans in terms of content, but also includes new services and technical developments. In the action plan, the stage Türkiye has reached in the e-Government process is evaluated and the targets planned to be achieved are explained in detail. It is aimed to create the e-Government ecosystem and increase its effectiveness (General Directorate of Communications, 2016:9).

In the first part of the plan, the innovations that need to be made in e-Government application and the social benefits that are intended to be provided by these innovations are stated. In the second section, the electronic services that public institutions are expected to provide within the planned period and the purposes of these services are explained. In the plan prepared from a user-oriented perspective, actions for citizens, disadvantaged groups, foreigners and the private sector were written. The fact that all segments of the society are taken into account in the plan shows that the social state principle is taken into consideration in e-Government services. In the action plan, the issue of cyber security was particularly emphasized, and the cyber security strategies of developed countries were examined during the preparation of the plan. (Kutlu et al., 2018:146). With the National e-Government Strategy and Action Plan, an innovative approach has been put forward in the public administration process, the

digital transformation process has been evaluated comprehensively and plans have been made for the next stages.

This plan is an important step in terms of service integrity in order to accelerate the transformation process of public institutions, increase service capacity, create new digital platforms for the coordination of the process and gather all public services under one roof. The fact that all segments of society are taken into consideration in the plan shows that the social state principle is taken into consideration in e-Government services. With the National e-Government Strategy and Action Plan, an innovative approach has been put forward in the digital transformation process, and the process has been comprehensively evaluated and planned.

TR Presidency Digital Transformation Office Information and Communication Security Guide: Today, technology, which is included in business processes in many areas, has brought about some security problems as well as the advantages it provides. Cyber security has become an important issue for Türkiye as well as all over the world. The Digital Transformation Office of the Presidency of the Republic of Türkiye prepared the Information and Communication Security Guide and published it in July 2020 in order to increase information security, ensure that precautions are taken in the public sector against cyber threats, and prevent disruption of public order.

To ensure cyber security in the guide; All elements of the system and the measures to be taken for each stage, such as network and system security, physical location security, personal data security, personnel security and smart device security, are explained in detail (CBDDO, 2020:11). Regarding cyber security, which is one of the important problems of the digital age we are in, the traditional risk management mechanisms of institutions should be rearranged and technical deficiencies should be eliminated (Akmeşe, 2019:112). The Information and Communication Security guide has a modern and scientific quality in terms of being a technically comprehensive study, examining each field in information technologies separately, being based on the consensus of different segments of the society during the preparation phase, and complying with international standards (Tulgar et al., 2022:378). Apart from the action plans prepared on e-Government in previous periods, cyber security has become the main subject of a national report for the first time. For Türkiye, which has moved a significant part of its public services to the electronic environment, the guide serves as an important example for subsequent studies in terms of clearly understanding the cyber security issue, which has become a global problem today, taking the necessary precautions, eliminating technical deficiencies and creating social awareness.

In the digital transformation process, the importance of strengthening the information technology infrastructure, which is inadequate in some institutions, increasing the quality and sustainability of electronic services as well as their security, and effective monitoring and inspections in this regard, is important in terms of cyber security.

2021-2025 National Artificial Intelligence Strategy: The National Artificial Intelligence Strategy will be developed with the Ministry of Industry and Technology in 2021 for the purposes of creating a common ground for projects carried out in the field of artificial intelligence in Türkiye, supporting these projects and ensuring the implementation of the developed projects. Prepared by the Digital Transformation Office of the Presidency of the Republic of Türkiye. Recently, artificial intelligence studies in Türkiye have shown rapid development and important projects have been undertaken both at home and abroad. In the strategy, in order to make the use of artificial intelligence more effective in the public and private sectors; Goals include accelerating workforce transformation, strengthening technological infrastructure, increasing support for R&D studies, contributing to

socioeconomic harmony, training artificial intelligence experts and increasing employment opportunities (STB and CBDDO, 2021). It is also thought that the strategy will positively affect strategic planning and governance in public administration (İyigün, 2021:676). In this respect, the National Artificial Intelligence Strategy plans to support and coordinate domestic studies, as well as be useful in a managerial sense by strengthening strategic planning and governance.

Artificial intelligence has become one of the basic elements of business processes today and has provided savings in terms of labor and time. The National Artificial Intelligence Strategy has been designed to accelerate socioeconomic adaptation, taking into account all parties of the process. Particular emphasis was placed on workforce and employment in the field of artificial intelligence. By examining global studies in this field, the most appropriate strategies for Türkiye have been tried to be determined. Public policies in different areas are included in the strategy, and the steps to be taken are explained clearly and understandably. In addition to supporting and coordinating studies in this field, the National Artificial Intelligence Strategy will also be beneficial in managerial terms by strengthening strategic planning and governance.

2. 4. Digital Transformation Office

The Presidential Government System has created new balances in public administration and revealed new actors. A mechanism was needed to harmonize public institutions, society and the private sector with the new system, to enable the use of technology in the implementation of policies and to coordinate the provision of public services in the digital environment. In this context; It was published and entered into force in the Official Gazette dated 10 July 2018 and numbered 30474, in line with the objectives such as restructuring public administration depending on technological developments, ensuring cyber security, accelerating e-Government studies, increasing the use of national technology, supporting artificial intelligence projects, and gathering digital public services in a single center. With the Presidential Decree No. 1, the Turkish Presidency Digital Transformation Office was established.

In the Presidential Government System, offices generally provide consultancy services to the President in the process of public policy formulation, plan the process by conducting the necessary research and studies, and monitor and report on the implementation process of the projects approved by the President. The office takes an active role in the administrative and legal processes of digital transformation, works on the legal infrastructure of the process, carries out the necessary activities to realize digital transformation on a legal basis and eliminate legislative deficiencies, and coordinates public institutions.

By managing digital transformation efforts from a single center, problems such as lack of organization, multi-headedness and failure to determine the right goals experienced in previous periods have been eliminated, and the process has gained further momentum (Karasoy and Babaoğlu, 2020:130). The duties and organizational structure of the Digital Transformation Office, established within the scope of Presidential Decree No. 1, are explained in detail in the relevant decree. In general, DDO's duties are (https://cbddo.gov.tr/mevzuat/1-nolu-cbk/, Access Date: 20.04.2024):

The objectives, policies and strategies determined by the President, to mediate the provision of Digital Türkiye (e-Government) services, to increase inter-institutional cooperation and to ensure coordination in these areas.

To prepare the road map of digital transformation in the public sector.

Developing projects that will ensure information security and cyber security.

To pioneer and coordinate artificial intelligence applications in priority project areas in the public sector.

To increase the use of local and national digital technologies in public institutions and to develop projects that will raise awareness on this issue.

To determine a strategy for public institutions and organizations to supply digital technology products and services in a cost-effective manner.

To coordinate efforts to identify and share central, provincial and overseas organizational units electronically.

When the tasks assigned are examined, it is seen that the Digital Transformation Office is effective at every stage of the process. The duty of the office is not only to carry out digitalization studies in public institutions, but also to prepare and integrate the entire society for this transformation. The Digital Transformation Office plays an active role in providing the expert personnel support needed in the digital transformation process, procuring the necessary equipment and coordinating public institutions in this field. The office's responsibilities include; Activities include supporting technological investments that will create added value, reorganizing the National Cyber Security Strategy to increase cyber security, simplifying public services offered through e-Government, gathering services under one roof and carrying out the necessary work for the effective functioning of the digital ecosystem (https:/ /cbddo.gov.tr/ulusal-politikalar/ , Access Date: 21.07.2023).

The Digital Transformation Office develops national projects and strategies to improve business processes in the public sector, strengthen the ICT infrastructure, accelerate the transformation process and ensure the adaptation of the entire society to the new system. These studies are important in terms of spreading digital services to all layers of society, encouraging the use of new systems and increasing awareness. In a period when cyber-attacks are increasing and technological development and digital maturity level affect the strategic position of countries, accelerating the transition to the information society with various projects, increasing digital literacy and including the society in policy-making processes will increase the effectiveness of digital transformation.

Moving public services to the digital environment has directly affected the lives of individuals and it has become mandatory to use e-Government applications for many services. Many services such as tax and penalty payments, job applications, hospital appointments, and social security services have begun to be offered digitally. Digital Transformation Office; By taking part in every stage of this transformation in production techniques, management systems and service offerings, it has shared in the convenience and savings provided by digitalization. Digital Transformation Office, which was established within the concept of "coordinator state" for the purposes of developing the necessary projects and strategies, leading digitalization studies, and ensuring the coordination of the process, has made significant contributions to public administration since the day it was established and has fulfilled its assigned duties with meticulousness and determination (Tamer and Övgün, 2020:785).

2. 5. Positive Effects Of Technological Change In Turkish Public Administration

Digital transformation has affected public administration, as in every field, and brought about significant changes. The transition from the traditional state structure to the e-Government model has improved and modernized public services. Although there are some cyber risks brought by digitalization, the inclusion of technology in business processes has provided significant advantages in public administration. Public services, which were difficult to access, costly and varied from person to person in previous periods, have been transformed into a fairer and quality structure by moving to the

electronic environment. Bureaucratic obstacles have been largely eliminated. The state had the opportunity to work with optimal benefit, and with the development of new methods, costs were minimized and the quality of services was increased (Özçim, 2014:33). With e-Government applications, citizen-government interaction has increased, and citizens have had the opportunity to easily share their expectations, complaints and opinions with the authorities on issues regarding public services. Citizens have become more active in the public policy-making process, and increased participation has also contributed to the development of democracy.

Digital transformation has increased transparency in public activities by making many transactions possible and auditable in a virtual environment. For the Turkish public management system, which was shaped within the framework of the new public management approach, digital transformation offered the opportunity to increase performance and efficiency and save on various cost items. With developing communication technologies, interaction and coordination between public institutions have also strengthened. The integration of public institutions in matters that require joint work has increased, and services have begun to be provided faster and with higher quality (Ölmez, 2021:12). Digital transformation has also positively affected public employees; Many transactions such as personnel salaries, leaves, activity and audit reports, retirement can be done digitally. File costs, transportation, communication, etc. costs were minimized and labor savings were achieved. The density in public institutions has decreased.

The rapid integration of technology into business processes has changed the way business is done in the public sector, and many transactions have become faster and safer. Digital transformation has positively affected public activities in different sectors. Health services, one of the basic public services, has been one of the sectors most rapidly affected by digitalization. Health services, which were difficult to access in previous periods, required long waiting times and had various costs, have become more accessible with the developed e-Government applications. With the rapid digitalization in the field of healthcare, processes have been automated outside the hospital, transferred to the digital environment, and data collected by traditional means have been transferred to the virtual environment and stored safely (Akalın and Veranyurt, 2020:134).

One of the most important digitalization efforts in the field of health is the e-Pulse system, which has been used since 2015. With the system, citizens' transactions with health institutions were moved to the electronic environment, patient tracking became easier, and large volumes of data that were difficult to store began to be stored on the system. Recording the data in a single center also enabled social risk analysis. In this respect, the e-Pulse system has been beneficial for both personal and public health. The positive effects of digitalization were also seen during the pandemic period that affected the whole world, and the rapidly developed "Hayat Eve Sığar (HES)" application included many information such as the vaccination process of individuals, the risk of carrying the virus, the quarantine period, and the regions where the virus is concentrated, contributing to the control of the process. The more effective the control and surveillance mechanisms in financial markets are, the more effectively the market functions (Yavuz, 2019:16).

Digital transformation has also directly affected the public financial system and improved business processes. Tax debts, fees, penalties, etc. to be paid. Public receivables can be paid quickly via relevant platforms. Tax tracking, notification and seizure transactions have started to be carried out electronically. In previous periods, transferring transactions made in public institutions such as tax offices and finance to electronic environment has eliminated problems such as long waiting times and file costs. Thus, the density in public institutions was reduced and labor savings were achieved. Digital transformation in the tax system; It ensures that taxpayer satisfaction and public interests are targeted

together, minimizes disputes between taxpayers and tax administrations, strengthens tax compliance, and contributes to increasing effectiveness and efficiency in the digital economy (Eyüpgiller, 2021:98). In addition to the tax system, the banking sector has also undergone a significant change with digital transformation, and transactions that citizens frequently use have become possible through systems such as internet banking. In the global economy, where technological development closely affects competition, digital transformation has become a necessity for public institutions as well as banking and the private sector.

Digital transformation has also affected the working principles of security units and the methods they use, and technological opportunities have begun to be used most effectively in ensuring public order. By transferring personal information to the police database, inspections have become faster and more effective, and with the development of digital forensics, obtaining digital evidence has shortened the investigation processes. While computer forensics facilitates evidence collection, it is especially effective in the fight against cybercrimes and financial crimes. Developed e-Government applications have also affected the judicial system, and in addition to accessing all data regarding the judicial process through the UYAP system, it has become possible to attend the court remotely. Digital transformation has pushed traditional methods in judicial processes into the background and introduced new and modern methods.

Digital transformation in public administration has brought about structural changes in ways of doing business, service delivery methods and policy-making processes. In today's world where technological development directly affects global competition, this transformation has become a necessity. With the developed e-Government applications, public services have begun to be provided in a higher quality, fairer and equal manner, and savings have been achieved for both public institutions and citizens. It is very important to be aware of the risks it brings and to take the necessary precautions, as well as to integrate and modernize public administration with the changing conditions of the age.

Within the scope of the 17th World Digital Government Ranking Research, conducted in 2022 in cooperation with the Digital Government Institute at Waseda University in Japan and the International CIO Academy, the countries that are in a leading position in digital transformation strategies in the public sector are Denmark, New Zealand, Canada, Singapore and the USA, respectively. In this ranking made out of 64 countries, the Republic of Türkiye ranked 38th (IAC. 2022. The 17th Waseda-IAC World Digital Government Ranking. https://iacio.org/wasada-iacworld-e-government-ranking/, Access Date: 20.04.2024). The scoring includes criteria such as digital infrastructures used in the public sector, cyber security, online services, management optimization, national portal and e-participation.

2. 6. Negative Effects Of Technological Change In Turkish Public Administration

The technological development in Turkish public administration has brought with it some negative effects. These effects can be explained under the following headings:

Technical and Infrastructural Problems: Although digital transformation provides advantages for public administration in many aspects, it has had negative effects on some issues. The transformation process should be based on strategic planning and implemented in stages. For the smooth functioning of the transformation process, strategic planning, expert teams capable of implementing the plans, financial support and a strong technological infrastructure are needed. Technological or economic inadequacies slow down the process and cause disadvantages for underdeveloped or developing countries.

Digital transformation began to be included in development plans and top policy documents in Türkiye since the mid-1980s, and the technical and legal infrastructure of the transformation began to

be created. Due to the political and economic instability experienced until the 2000s, due attention could not be paid to e-Government studies. After 2000, the development of the e-Government model accelerated and public services were transferred to the electronic environment in stages. The e-Government platform was put into use in 2008 and, supported by regular systematic developments, today most of the public services can be provided through e-Government. With the establishment of the Digital Transformation Office in 2018, the concentration of work in one hand has ended multi-headedness, disorder and instability, and an important stage has been reached today with the determined and devoted work done (Güngör, 2020:95-96).

In the globalizing world, the number of national and international activities carried out in the digital environment is increasing day by day, and digital maturity is becoming an important development criterion. Individuals, companies and states have started to have a digital identity today, virtual identity has turned into a status determination tool and many activities have become possible with virtual identity (Diker, 2017:149). Online conferences, e-commerce applications, distance education, e-sports tournaments, etc. Many activities are becoming increasingly common. While developed countries with strong technological infrastructure benefit from digitalization more effectively, developing and underdeveloped countries lag behind in global competition due to technical, infrastructural and material inadequacies. This situation causes development differences and regional inequalities. Having a strong infrastructure for a healthy digitalization process directly affects the success of the process. Although Türkiye has reached an important point in its digital transformation in a short time, it encounters problems that slow down the process due to its low internet speed compared to developed countries and some technical deficiencies. Today, it is possible to overcome existing problems by increasing the qualified workforce required for digital transformation, further supporting investments in technology, and determined work led by the Digital Transformation Office.

Digital Divide: Digitalization has affected every aspect of life today, improved business processes and increased global interaction. The rapid development in communication technologies has accelerated the globalization process and the lifestyles of societies have become similar. While economically and technologically developed countries adapt more easily to popular culture and modern lifestyle, infrastructurally and economically weak countries have difficulty accessing technology, which causes global injustice. Irregularities in income distribution, global poverty and increasing interregional development differences lead to the exclusion of some societies, despite today's rapidly developing technology and communication opportunities. While technology unites, it also brings separation.

While the use of technology is rapidly becoming widespread today and has become mandatory in many areas, the difficulty of accessing technological opportunities due to their high costs has revealed the problem of "digital divide". This problem is also called "digital poverty" in the literature. Due to differences in development, the difference between societies that cannot or have limited access to technology and societies that reach or even produce these opportunities is expressed by the concept of "digital divide" (Değirmen et al., 2016:109). Global problems such as poverty and income inequality are the result of digitalization. As it has become mandatory in many areas, it has caused a new injustice for societies that have difficulty accessing technology and has deepened existing problems.

Nowadays, owning smart devices and accessing the internet has become a necessity. In this period when global income inequality is increasing, education, business life, production methods, etc. While there is a rapid digitalization process in areas, the use of technology is becoming increasingly costly, causing many individuals to become isolated from society. The field of education has been one of the areas most affected by the digital divide. There is a significant difference in development between a "digital native" student profile, which refers to the generation that frequently uses computers and smart

devices and was born and raised in an environment where technological developments take place rapidly, and societies where child poverty is high (Kartal et al., 2017:356). Although digitalization makes life easier and saves money in many aspects, societies that have difficulty accessing technology have become disadvantaged. For this reason, in order to achieve the expected efficiency from digital transformation, income distribution must be made more equitable and global poverty and regional development differences must be minimized.

Privacy and Security Issues: Digital transformation has been achieved rapidly in many areas in a short time, and many jobs done physically have become possible with digital platforms and artificial intelligence. Although this situation provides various advantages, it has also brought about security concerns in today's world where cyber-attacks are common. While cyber-attacks were carried out by criminal organizations in the past, they have now become carried out at the state level, and in this respect, cyber security has become decisive in ensuring national security.

Digital transformation is a process that requires not only the work of the state but also the joint effort of the whole society. For this reason, in addition to public institutions, society and the private sector also have responsibilities to ensure cyber security. Although digital transformation is carried out in the safest way by expert teams, increasing citizens' awareness of technology will increase society's resistance to cyber threats. For this, "digital awareness", which refers to the use of advanced technology, the level of digital literacy and awareness of cyber threats, should be developed, and individuals should use technology consciously (Atasoy and Ormanlı, 2019:408).

With the rapid spread of technology use in every field and the increase in the number of users, cyber-crimes have begun to increase. Nowadays, the number of people who are victims of cyber-crimes is increasing day by day. The effectiveness of the fight against cybercrime is important for digital transformation security. In order to accurately measure cyber threats and develop the necessary strategies, units with observation, monitoring, analysis and prediction capacity are needed (Hekim and Başıbüyük, 2013:155). For this reason, regarding cyber security, which has become a global problem today, units dealing with cyber-crimes have been established within all national security forces, and expert teams in the field of informatics have been assigned to combat crimes.

Cyber security problems can lead to losses that are difficult to compensate, if necessary, precautions are not taken. For this reason, the process must proceed in the safest way in terms of sustainability and efficiency of digital transformation. It is also very important to take the necessary precautions, to control the increasing concerns about cyber-crimes in society and to ensure trust. In addition to the security measures to be taken, increasing the digital literacy and maturity level of the society and raising awareness will increase cyber security. In order for digital transformation to increase effectiveness and efficiency in business processes, security risks should be taken into account and necessary precautions should be taken.

Informatics Industrialists Association (TÜBİSAD) examines the digitalization status of Türkiye 's economy and society and announces Türkiye's Digital Transformation Index Report every year. It was announced in the 2022 Report. The report, created by analyzing surveys filled out by members of the business world and data received from 139 countries, reveals Türkiye's digitalization performance in four main components and 10 different dimensions: ecosystem, competence, usage and transformation. According to Türkiye's Digital Transformation Index 2022 Report, Türkiye's 2022 digital transformation index was measured as 3.12 out of 5, with a decrease of 2.8 percent compared to last year. While 35 of the 64 sub-indicators that make up the general index value decreased in 2022, the index value of 23 indicators increased and the value of 6 indicators remained unchanged. In 2022, it was observed that the

index score of the Ecosystem, Sufficiency, Use and Transformation components that make up the index decreased. While the most important component that brought down Türkiye's digitalization score in 2021 was the "Ecosystem" component, it became the "Transformation" component in 2022. The component that pushes Türkiye's digitalization score up in 2022 is the "Sufficiency" component; The second component that had the most positive impact on the index value was seen as the "Use" component. Index data shows that Türkiye's capacity for digital transformation is appropriate and has made progress since 2019, but digital transformation has relatively stalled as of 2022 (Türkiye's Digital Transformation Index 2022, https://www.tubisad.org.tr/tr/images/pdf/DDE-2022-Raporu-Final.pdf, Access Date: 20.04.2024).

3. METHOD

3.1. Purpose of the Research

The main purpose of this study is to examine the transition process from traditional public administration to e-Government in Türkiye, the emergence process of e-Government, the elements of e-Government, its objectives, application examples of e-Government in Türkiye, development plans and top policy documents under the headings of e-Government. To examine this process and transformation in depth, and then to examine the digital transformation office established with the Presidential Government System, and to examine not only the positive aspects of this transformation, but also the positive effects of the technological development in Turkish public administration, as well as the negative effects of the technological change in Turkish public administration.

In terms of public administration, e-Government not only represents a mentality transformation but also is considered as a process that still continues its development, containing both strengths and weaknesses.

3.2. Method of Research

This study is qualitative research based on the literature review method. In accordance with the purpose and scope of the study, first of all, relevant legal and administrative documents in Türkiye were examined in detail. In addition, international and national academic studies were evaluated through literature review.

RESULT AND EVALUATION

Changes in information and communication technologies have affected the state and public administrations as well as many areas. In fact, a new era has begun in Türkiye with the understanding of e-Government that emerged and developed with the development of information and communication technologies. The way the state establishes contact with its citizens, the state's methods of providing public services and the public policy making process have differed. Today, many public services can be delivered via e-government. Significant successes have been achieved in the process that started in the 2000s in Türkiye, and efforts are being made to produce solutions by gaining experience from the problems experienced. In the study, the concept of e-Government is explained; The elements, objectives and development stages of the e-Government model are included. The active use of information and communication technologies in public administrations has provided many conveniences for both the state and the citizens. However, technological developments also pose some risks in public administration. In order to reduce these risks, technical and infrastructural problems need to be resolved. In addition, the issue of cyber security, which also has international dimensions, was also examined in the study.

In Türkiye, after 2000, both the legal and technological infrastructure of the digitalization process began to strengthen, and the transformation process was implemented in stages. Digital transformation was gathered under the coordination of the Digital Transformation Office, which was established with the transition to the Presidential Government System in 2018, and especially after this date, the e-Government platform has become the center of public service delivery. This shows that coordination, planned work and stability are of decisive importance in digital transformation. Digital transformation is not an issue that only involves the work of public institutions, but is a process that will mature with the joint efforts of all layers of society. Today, it is important to become an information society in order to adapt to the modern world. For this reason, activities regarding the use of technology both in educational institutions and in service trainings need to be increased. As a result of rapid technological developments, the globalization process has gained momentum and individuals have become citizens not only of their country but also of the world. In addition to economic power, digital maturity level has become a determining factor in measuring the development levels of countries. For this reason, digital transformation has become a necessity in order to become one of the developed countries.

With the transition to the presidential government system, the issue of digital transformation has come to the fore in connection with the e-Government approach. A digital transformation office affiliated with the Presidency was established. The fact that the issue of digital transformation is handled by an office affiliated with the Presidency shows the importance given to this issue within the system. Digitalization has provided speed, convenience and efficiency in public administration, as in many areas. It has led to the development of new ways and methods in terms of management and organization. When evaluated from the perspective of public administration in Türkiye, there have been many positive developments in the context of structure, process and applications from the process that started with the e-Government approach and continues with digitalization. Bureaucratic obstacles have been reduced, access to services has become easier, governance has been strengthened, participation has increased, and public administrations have become more transparent. Due to its structure, digitalization does not represent a completed process but a dynamic process that is currently ongoing. The reflections of digitalization on public administration are an ongoing process

Ethics Statement

Research and Publication Ethics rules were followed. Ethics committee permission is not required for the study titled "Türkiye's Technological Change, e-Government and Public Administration".

Contribution Statement

The authors of the study contributed to all processes from the drafting of the research article to its final version and read and approved the final version.

Conflict of Interest Statement

This study has not led to any individual or institutional/organizational conflict of interest.

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Extended Abstract

Türkiye's Technological Change, e-Government and Public Administration

The main purpose of this study is to examine the transition process from traditional public administration to e-Government in Türkiye, the emergence process of e-Government, the elements of e-Government, its objectives, application examples of e-Government in Türkiye, development plans and e-Government in top policy documents. After examining this process and transformation in depth under the headings of state, we examine the digital transformation office established with the Presidential Government System and examine not only the positive aspects of this transformation, but also the positive effects of the technological development in Turkish public administration, as well as the negative effects of the technological change in Turkish public administration. also to examine.

In terms of public administration, e-Government not only represents a mentality transformation but also is considered as a process that still continues its development, containing both strengths and weaknesses.

This study is qualitative research based on the literature review method. In accordance with the purpose and scope of the study, first of all, the relevant legal and administrative documents in Türkiye were examined in detail. In addition, international and national academic studies were evaluated through literature review.

Technological developments have closely affected public administration, as in every field, and brought about significant changes. A new era has begun in Turkish public administration with the digital transformation; Ways of doing business, service delivery methods and public policy making processes have undergone a radical change. Today, most of the public services have been moved to the electronic environment and public administration has gained a new dimension. In this study, the emergence process of e-Government, the elements of e-Government, its objectives, application examples of e-Government in Türkiye, e-Government in development plans and top policy documents, digital transformation office, positive effects of technological development in Turkish public administration. effects, negative effects of technological change in Turkish public administration are included. Today, many public services can be delivered via e-government. Significant successes have been achieved in the process that started in Türkiye in the 2000s, and efforts are being made to produce solutions by gaining experience from the problems experienced. Active use of information and communication technologies in public administrations has provided many conveniences for both the state and citizens. However, technological developments also pose some risks in public administration. In order to reduce these risks, technical and infrastructural problems need to be resolved. In addition, the issue of cyber security, which also has international dimensions, was also examined in the study. With the transition to the presidential government system, the issue of digital transformation has come to the fore in connection with the e-Government approach. A digital transformation office affiliated with the Presidency was established. The fact that the issue of digital transformation is handled by an office affiliated with the Presidency shows the importance given to this issue within the system. Digitalization has provided speed, convenience and efficiency in public administration, as in many areas. It has led to the development of new ways and methods in terms of management and organization. When evaluated from the perspective of public administration in Türkiye, there have been many positive developments in the context of structure, process and applications from the process that started with the e-Government approach and continues with digitalization. Bureaucratic obstacles have been reduced, access to services has become easier, governance has been strengthened, participation has increased, and public administrations have become more transparent. Due to its structure, digitalization does not represent a completed process but a dynamic process that is currently ongoing. The reflections of digitalization on public administration are an ongoing process.